

WHAT IS CLAIMED IS:

1. An absorbent article comprising:
- (1) a backsheet;
 - (2) a liquid pervious topsheet joined to the backsheet;
 - (3) an absorbent core disposed intermediate to the topsheet and the backsheet;
- and
- (4) a thermal cell actuator capable of adding or removing heat from at least a portion of the absorbent article to perform a useful function on the article or environment between the article and a wearer.
2. An absorbent article comprising:
- (1) a backsheet;
 - (2) a liquid pervious topsheet joined to the backsheet;
 - (3) an absorbent core disposed intermediate to the topsheet and the backsheet;
 - (4) a thermal cell actuator capable of adding or removing heat from at least a portion of the absorbent article to perform a useful function on the article or environment between the article and a wearer; and
 - (5) a triggering mechanism connected with the thermal cell actuator whereby a non-urine based signal within the article causes the thermal cell actuator to add or remove heat from at least a portion of the absorbent article.
3. An absorbent article comprising:
- (1) a backsheet;
 - (2) a liquid pervious topsheet joined to the backsheet;
 - (3) an absorbent core disposed intermediate to the topsheet and the backsheet;
- and
- (4) an electrically powered thermal cell actuator capable of adding or removing heat from at least a portion of the absorbent article.

Sub
B6

SECRET

- Sub B6
4. The absorbent article of claim 1 wherein the thermal cell actuator performs a function between the backsheet of the article and the skin of the wearer in response to a change in relative humidity, moisture, or temperature.
 5. The absorbent article of claim 1 wherein the thermal cell actuator performs a function in response to the application of a tensile force by a caregiver to extend a portion of the garment body, or in response to the application of a normal force to compress a portion of a garment body by a caregiver.
 6. The absorbent article of claim 1 wherein the action of the caregiver is an application of a tensile force to peel a tab exposing an opening in the thermal cell actuator which allows for the activation of said actuator.
 7. The absorbent article of claim 1 wherein the thermal cell actuator controls humidity or temperature in the article.
 8. The absorbent article of claim 7 wherein the article has a backsheet region adjacent to the absorbent core having a water vapor transmission rate of no more than about 2600 g/m²/day.
 9. The absorbent article of claim 1 wherein the thermal cell actuator includes a material that performs an exothermic or endothermic reaction.
 10. The absorbent article of claim 1 wherein a reactant of the exothermic reaction is selected from the group: Na₂HPO₄*12H₂O, Na₂SO₄*10H₂O, Na₂CO₃*10H₂O, NH₄NO₃, KCl, NH₄Cl, KNO₃, NaNO₃, KCNS, NH₄CNS, Urea, NaCH₃COO*3H₂O.
 11. The absorbent article of claim 1 wherein the thermal cell actuator includes a Peltier Element.
- Sub B7

RECEIVED

12. The absorbent article of claim 1 comprising a thermal cell actuator that provides a constant temperature in a region of the article during use of the article of about 15° to about 25° Celsius.
13. The absorbent article of claim 12 wherein the thermal cell actuator is not in contact with the wearer's skin when the article is worn.
14. The absorbent article of claim 12 wherein the thermal cell actuator is in vapor communication with the wearer's skin such that vapor can condensate inside the article.
15. The absorbent article of claim 12 wherein the thermal cell actuator is triggered by a user during application of the article.
16. The absorbent article of claim 12 wherein the constant temperature in the region is maintained for at least 1 hour.
- Sub B8 17. ~~The absorbent article of claim 1 wherein the thermal cell actuator changes a dimension of a component of the article or a physical property of a component of the article.~~
18. The absorbent article of claim 17 wherein the component of the article is a waist opening or a cuff opening.
- Sub B9 19. ~~The absorbent article of claim 1 wherein the thermal cell actuator effects the environment between the backsheet of the article and the skin of the wearer by decreasing malodorous vapors or increasing fragrance.~~
20. The absorbent article of claim 19 wherein the thermal cell actuator provides at least a portion of the article with a temperature of less than about 25° Celsius.